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# SULFONAL

A NEW HYPNOTIC

BY

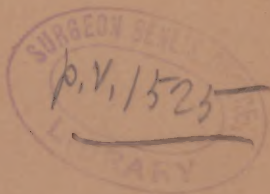
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EDMUND CHARLES WENDT, M.D.

VISITING PHYSICIAN ST JOSEPH'S ASYLUM; CURATOR AND PATHOLOGIST OF THE  
ST. FRANCIS HOSPITAL, AND OF THE NEW YORK INFANT ASYLUM, ETC.

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*Reprinted from* THE MEDICAL RECORD, *June 2, 1888*

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NEW YORK  
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## SULFONAL, A NEW HYPNOTIC.

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AMONG the class of so-called "troublesome" affections, insomnia is entitled to a foremost place. If medical statistics are to be trusted, idiopathic sleeplessness is certainly on the increase all the world over. And perhaps this is true to a larger extent in our own country than anywhere else. So long as the pathology of the condition in question, if it has a pathology, is so little understood, we must be content to deal with it in an empirical way. For neither the assumption of cerebral anæmia, nor of cerebral plethora, nor of any other single morbid state, will suffice to explain many of those cases that prove alike troublesome to the practitioner, to the patient, and to his family.

These facts have for some time been so clearly understood, that earnest and persevering researches have been undertaken, with the view of finding some remedy that would meet the symptomatic indications of the disorder, without possessing, at the same time, properties that involved actual or potential danger. It is, unfortunately, only too true that our best-known narcotics are potent for mischief in both directions. Baneful habits are encouraged by their unstinted employment, and in more moderate dosage they fail to afford the desired relief.

Thus it has happened that, within the past few years a number of new remedies have been introduced, the action of which, we have been told, was unlike opium, chloral, cannabis, or the bromides. Most of these drugs belong to the acetal group of compounds. They include methylal, acetophenon (better known as hypnon), urethan, paralde-

hyd, and hydrate of amylum. The two last named have found some favor at the hands of the profession, although none of the remedies named have proved uniformly satisfactory.

The most recent drug of this kind comes to us with the endorsement of eminent German authority. But it comes to us unheralded by the usual exaggerated accounts of hitherto unheard-of efficacy and universal applicability. According to Professor Kast,<sup>1</sup> of Freiburg, sulfonal is a hypnotic pure and simple. It does not compel sleep through a paralytic effect on the nerve-centres, nor through a profound impression produced upon the vascular system. From numerous experiments on animals, and many clinical observations on man, the action of this new remedy would appear to consist merely in the intensification of those factors that lead to natural sleep in the physiological sense, or in supplying the periodical desire for sleep in those cases where it is wanting. It is for this reason, probably, that the range of applicability of sulfonal is a more limited one than that of some other drugs employed as hypnotics.

But sulfonal, we are informed, has none of the disadvantages inherent in the deadly narcotics, and it is much more reliable than any of the bromides. This new body does not disturb digestion, it is not constipating, it has no unpleasant after-effects, it is perfectly harmless, it does not invite the formation of "a habit," and, finally, it does not appear to lose its efficacy, even when employed for a long period. Surely this is enough to recommend sulfonal to our attention, and if the profession will confirm the claims put forth by its sponsors, there can be no doubt that an extremely valuable addition will have been made to our stock of remedies.

Sulfonal was first prepared by Baumann,<sup>2</sup> formerly as-

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<sup>1</sup> Sulfonal, ein neues Schlafmittel. Von Prof. A. Kast, in Freiburg i. B. Separat Abdruck aus Berliner Klin. Woch., No. 16, 1888.

<sup>2</sup> Ber. der deutschen Chem. Gesel., vol. xix.



sistant to Hoppe-Seyler, and well known for his numerous researches concerning organic compounds. It would appear that, like so many of our newer drugs, this body was found only partly in consequence of a definitely understood purpose, and in part as the result of accident.

Professors Kast and Baumann had been engaged in investigating a series of bodies known as disulfones. Almost the first substance submitted to a more detailed analysis and examination was the product of oxidation of a compound, resulting from the action of acetone or æthylmercaptan. It was this body that later was found to be the valuable hypnotic under consideration.

Chemically this substance enjoys the euphonious designation of "diethylsulfondimethylmethan." We fully concur in the opinion expressed by Professor Kast, that "sulfonal" is a more comfortable name. The formula of the new drug is  $(\text{CH}_3)_2 = \text{C} = (\text{SO}_2\text{C}_2\text{H}_5)_2$ . It occurs in the form of large flat, colorless crystals, which are tasteless and devoid of smell. Sulfonal is soluble in 18 to 20 parts of boiling water. In tepid water the solubility is only about one to one hundred. The crystals dissolve more readily in alcohol and alcohol mixed with ether. Acids and alkalies do not affect the composition of the body, which appears to possess considerable chemical stability. The crystals melt at a temperature of  $257^\circ$  to  $260^\circ$  F.

As regards dosage, we learn that fifteen to sixty grains usually suffice to insure several hours of refreshing sleep. The hypnotic effect is observed from half an hour to two hours after the exhibition of the drug. It is best administered mixed with a little water, or in wafers or capsules. An average dose to begin with is fifteen grains.

It appears that sulfonal is specially applicable to the simple insomnia so often witnessed in neurotics. But it has also been found useful in febrile wakefulness, in the restlessness of organic heart disease, and even in the delirium of dementia.

Sulfonal has already been largely employed in the treat-

ment of mental disorders. Dr. Rabbas,<sup>1</sup> of the Marburg Lunatic Asylum, has published a special report in which he speaks very highly of this new remedy. He has used it over two hundred times, with uniformly gratifying results. He emphasizes particularly its absolute harmlessness, which contrasts favorably with the greater or less danger of the hypnotics hitherto usually employed in lunacy practice.

The best time to administer sulfonal would appear to be the late afternoon and evening hours. From five to eight, or even ten, hours of profound sleep usually follow its use. Women are more readily influenced by the drug than men, and fifteen grains is generally sufficient to put them to sleep.

Professor Kast believes that sulfonal affects the gray matter of the brain, but in what way he does not state. From carefully conducted microscopical and spectroscopical examinations, it is asserted that this substance has no ill effect on the blood. This holds good even in the case of animals actually poisoned by its use. The mucous membrane of the alimentary canal likewise remains unaffected by its internal administration.

I have not hitherto been able to obtain the drug in this city, and I have, consequently, no personal experience concerning its efficacy.

Through the kindness of my friend Dr. Kammerer, of New York, I am able to state that a supply of this drug, sufficient for clinical trials, has already been shipped by Professor Kast to him, and is daily expected by us.<sup>2</sup>

I have not hesitated to give to the readers of THE MEDICAL RECORD early information regarding sulfonal, because it has the endorsement of gentlemen whose professional standing offers a guarantee of the trustworthiness

<sup>1</sup> Ueber die Wirkung des Sulfonals, von Dr. J. Rabbas. Separat-Abdruck aus Berlin. klin. Woch., No. 17, 1888.

<sup>2</sup> The druggists Eimer & Amend have, at my suggestion, also ordered an adequate supply of the drug from the German manufacturers, Fr. Bayer & Co., in Elberfeld.



of their assertions. It goes without saying that we will require the confirmatory evidence of the profession at large, before we can state positively that, in the discovery of sulfonal, we have really found the much-sought-for desideratum, namely, a safe, unfailing, and yet powerful hypnotic.

712 MADISON AVENUE,  
May 21, 1888.

